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INSTITUTIONAL ARRANGEMENTS FOR WATER QUALITY MANAGEMENT PLANNING

Harold F. Wise and Associates
Washington, D.C.

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WATER QUALITY MANAGEMENT PLANNING

INSTITUTIONAL ARRANGEMENTS FOR WATER QUALITY MANAGEMENT PLANNING

The report examines the impact of the unified HUD/EPA Water Quality Management Planning Guidelines on the planning efforts of several States with particular regard to institutional and intergovernmental arrangements in State, river basin and regional planning. The report identifies the status and current problems of the water quality management State planning programs and presents recommendations for the alleviation of the problems.

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PREFACE

An effective planning process is an integral part of, and provides the basis for developing and efficiently implementing the total water quality management program.

There are some strong reasons for an appropriate combination of Federal, State and local planning effort. (1) Broad Federal guidance and technical support assures the perspective and priority considerations necessary to achieve national water quality goals. (2) State establishment or designation of responsible planning agencies coupled with State participation and coordination with these agencies will assure stronger State water quality programs and consistent plans for implementation of the water quality standards. (3) Development of plans by local governments as the responsible planning agencies will provide the grassroots involvement essential to plan implementation.

This report is intended as an aid to the States in defining and assessing their institutional interfaces in the planning process. Water quality management planning requires extensive cooperation and coordination between a variety of governmental entities. Lines of communication, both inter- and intra-governmental, which are not based upon dollar flow are often weak or non-existent. Effective planning can result only if such weak communication links are strengthened. By presenting the relevant Federal, State and local authorities, tasks, requirements and intergovernmental relationships, this report indicates the basic planning framework and the necessary lines of communications. It is designed to enable State and local governments to evaluate their current planning structures and interfaces in terms of management needs and to implement the necessary institutional arrangements to improve their planning efforts.

Eugene T Jensen

Deputy Assistant Administrator
for Water Programs

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INTRODUCTION

The contract calling for this report required the contractor to conduct a reconnaissance of three selected states, and their respective EPA regional offices, in order to determine:

"a. The nature and extent of the States' institutional and intergovernmental arrangements;

b. Their interpretations of and actions taken with regard to the implementation of the "Guidelines -- Water Quality Management Planning" published January 1971; and

c. An assessment of possible future actions the Office of Water Programs can undertake to strengthen the planning process contemplated by the guidelines in light of the findings made under a. and b. above."

The States selected for study were Massachusetts, Arkansas, and Florida. EPA regional offices responsible for these States are located in Boston, Dallas, and Atlanta.

The conclusions drawn and recommendations set forth in this report are based on the field visits referred to above, interviews with Washington based EPA, HUD, and Department of Agriculture officials, and observations made by the authors in connection with other planning assignments with various State and areawide planning organizations.

It is the purpose of this report to set forth a series of observations and recommendations to assist EPA and the States in developing the institutions necessary to proper planning and programming of Water Quality Management actions.

I. THE GUIDELINES AND SOME BASIC CONSIDERATIONS

Background

The primary mission of the Environmental Protection Agency's Office of Water Programs is "the prevention, control, and abatement of water pollution" so as to "enhance the quality and value of ... water resources."[1/]

The major tool available to the agency is its construction grant program. Section 8(a) of the Act authorizes the making of grants "for the construction of necessary treatment works to prevent the discharge of untreated or inadequately treated sewage or other waste into any waters and for the purpose of reports, plans, and specifications in connection therewith."

The Congress has authorized $2,000,000,000 for FY 1972 for these purposes. Legislation pending before Congress would raise authorizations to incur obligations to make construction grants to five billion dollars for F.Y. 1975. Appropriations to meet grant contract obligations are authorized to aggregate as much as fourteen billion dollars through fiscal year 1975.

The Congress has provided that these construction grants will be made in an orderly manner, based on comprehensive planning and programming coordinated through the State Governments. The Federal Water Pollution Control Act, as amended, provides that "no grant shall be made for any project ... unless such project shall have been approved by the appropriate State water pollution control agency ... and unless such project is included in a comprehensive program ..." and "... is in conformity with the State water pollution control plan ...".

1/ Section 1(a), Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et. seq.).

The Guidelines

During January 1971, the Environmental Protection Agency issued its "Guidelines -- Water Quality Management Planning."

These Guidelines initiate the unification of planning requirements for the EPA Waste Water Treatment Works Construction Grant Program and the HUD Water and Sewer Facilities Grant Program.

The "Preliminary Planning Guidelines" provide the basic considerations to be addressed in meeting the requirements of both organizations. Revisions, based on experience, are contemplated.

The Guidelines were issued to implement EPA's current regulations (18CFR 601.32 and 33) published on July 2, 1970. The regulations state "no grant shall be made unless the project is included in an effective current basin-wide plan for pollution abatement." The regulations further provide that "a grant for a project shall not be made unless ... such project is included in an effective metropolitan or regional plan ... and certified by the Governor or his designee as being the official pollution abatement plan ... for the metropolitan area or region ...".

In the evaluation of plans, the regulations indicate that determinations must be made whether the plans "adequately take into account: anticipated growth of population and anticipated economic activity with reference to time and location; present and future use of the waters within the planning area for water supplies, propagation of fish and wildlife, recreational purposes, agricultural, industrial and other legitimate uses; adequacy of the waste collection systems in the planning area with reference to operation, maintenance, and expansion of such systems; combination or integration of waste treatment facilities into a waste treatment system so as to achieve efficiency and economy of such treatment; practicality and feasibility of treating domestic and industrial waste in a combined waste treatment facility or integrated waste treatment system; need for and capacity to deal with waste from sewers which carry storm water or both storm water and sewage or other wastes; waste discharges presently in or anticipated for the planning area; effect of the proposed waste treatment facility upon the quality of water within the planning area with reference to other waste discharges and to applicable water quality standards."

Water quality management plans, both at the basin and at the metropolitan/regional (areawide) level, are to be in place and completed by July 1, 1973. Interim plan procedures may be used to back up

construction grant applications prior to this date to reconcile "lead time for planning with the existing implementation schedules and flow of construction projects."[1] Procedures are provided for updating and maintaining completed plans.

Samuel C. Jackson, Assistant Secretary for Community Planning and Management, Department of Housing and Urban Development, and William D. Ruckelshaus, Administrator of the Environmental Protection Agency, signed a "Joint Agreement for Inter-Agency Coordination in Planning and Development", dated June 7, 1971, and providing for "coordinated administration of comprehensive and functional planning and construction grant requirements applicable to:

a. Policy and coordinative planning;

b. Integrated functional planning for water quality; and

c. Development of fully integrated wastewater collection and treatment systems."

The agreement indicates that grants awarded by HUD and EPA "must meet the same administrative and regulatory requirements with respect to comprehensive and functional planning, and programming of wastewater collection and treatment systems."

Programs covered by the agreement are:

Department of Housing and Urban Development

1. Basic Water and Sewer Facilities Grant Program Section 702 of the Housing and Urban Development Act of 1965, as amended -- 42 USC 3102 (C).

2. Comprehensive Planning Assistance (701) Grant Program -- Section 701 of the Housing Act of 1954, as amended -- 40 USC 461.

Environmental Protection Agency

1. Construction Grants for Wastewater Treatment Works -- Section 8 of the Water Pollution Control Act, as amended -- 33 USC 1158.

2. State and Interstate Program Grants -- Section 7 of the Water Pollution Control Act, as amended -- 33 USC 1157.

3. Comprehensive River Basin Planning Grants -- Section 3(c) of the Water Pollution Control Act, as amended -- 33 USC 1153(c).

1/ The Guidelines -- page 1-9.

These guidelines and the agreement follow a long-term history of cooperation between administrators of HUD's comprehensive planning program and community facilities (including water and sewer facilities grants) grant programs, on the one hand, and EPA's predecessor agency's programs for wastewater treatment works.

The current joint EPA-HUD Guidelines for Water Quality Management Planning rely heavily on the perfection of intergovernmental machinery for planning and action, to accomplish the objectives of the EPA and HUD programs.

Properly, the regulations and guidelines provide that:

1. Federal grants for the construction of Waste Treatment works will only be made if the project in question is included in "an effective current basinwide plan for pollution abatement" as well as included in "an effective metropolitan or regional plan developed or in the process of development and certified by the Governor ... as being the official pollution abatement plan ... for the metropolitan or regional area within which the project is proposed to be constructed."

2. The Governors, or their designees, of the respective states have the final sign-off on all Basin and Metropolitan/Regional Plans. They also sign off on the State's Annual State Program Plan. They certify the internal consistency of each.

3. "Planning is required in two distinct but related geographical areas":

    a. The Basin hydrological system; and

    b. The Metropolitan/Regional plan.

4. The guidelines differentiate between the Basin Plan and the Metropolitan/Regional Plan, as follows:

    "1. The basin plan should provide the main input on hydrology, location, and characterization of waste sources (including storm water, combined sewers, non-point sources), treatment levels (present and future), water quality effects (present and future), land use, basin-wide alternatives (such as trans-basin diversions, flow augmentation), and basin-wide priorities for construction.

2. The metropolitan/regional plan should provide the main input on land use, growth, estimated waste production, process design, service areas, collection systems, sewer drainage areas, investigation of local and regional alternatives, cost estimates, financing, and institutional arrangements. If no metropolitan/regional plan is to be prepared, the basin plan should then include the expected environmental impacts of any projects proposed for the basin."

The Guidelines envision an integrated and interacting system of intergovemmental relations.

Water Quality Office, EPA, together with Community Planning and Management, HUD	• Establish regulations and issue guidelines; • Define desirable planning and action roles as between the States, River Basin Organizations and Metropolitan/Regional agencies; • Make planning and construction grants consistent with the above.
Governors of the States	• Cooperate with EPA and HUD Area and Regional Offices in recognizing areawide Planning Organizations to accomplish Metropolitan/Regional Water Quality Management Plans; • Designate appropriate basin planning organizations. Establish processes for coordination between Areawide and Basin planning organizations; • Certify that plans are consistent with State programs and that Metropolitan/Regional plans are consistent with Basin Plans and vice versa; • Sign off on the Annual State Program Plan containing statewide priorities (which are based upon Basin and Metropolitan/Regional Plans).

River Basin Planning

- A State level responsibility.
- Basin Plans emphasize Basinwide water quality management solutions, hydrology, and waste-carrying capacity of receiving waters; are concerned with with developing most cost-effective solutions and the establishment of water quality standards. The basin plan should assess those factors which, for any reason, cannot be effectively evaluated separately by the various metropolitan/regional areas within the basin;
- Metropolitan/regional plans are considered in basin planning in the determination of potential waste sources.
- State Water Quality Agency coordinates with State and metropolitan/regional planning agencies for consistency in implementation of policies and planning.

Metropolitan/Regional Planning Agencies

- Prepare Metropolitan/Regional Water Quality Management plans defining "the strategy which results in the most cost-effective solution for the waste water disposal problems within the planning area."

  As the Guidelines indicate:

  "The basin plan ... should define the allowable total waste discharge to the receiving water from each Metropolitan/Regional (M/R) area. Therefore, within each M/R area, the objective is to allocate this allowable discharge among the individual waste sources. Whereas the basin plan

may lump the total waste discharge from the M/R area into a single point discharge, the M/R plan must consider each waste discharge individually. The task becomes one of coordinating these individual waste sources into a regional system. This ... implies a coordinated and unified planning effort within a M/R area to assure the most cost effective water quality management program for the area as a whole, consistent with the overall strategy for the basin, as defined in the basin plan."

- Concentrate on the insitutional arrangements necessary to the implementation of the Metropolitan/Regional Plan and the Basin Plan;

- Provide the clearinghouse function under OMB Circular No. A-95, reviewing applications for Federal planning and construction monies for consistency with regional comprehensive planning and water quality management plans.

The Water Ouality Management Planning Guidelines indicate that:

> "Some technically feasible alternatives may, in certain cases, be constrained because of the absence of a legislative base for implementation. Additionally, jurisdictional problems can exist because of the vested interests of many institutional entities which may exist in a basin or M/R area. Where conflicts of interest affect any of the abatement alternatives, they must not only be recognized as constraints in the analysis, but organizational or other institutional remedies should be proposed."1/

The implications of these provisions are clear. What is being said is that the local metropolitan/regional planning organization (whose policy body is predominantly composed of elected officials of the units of local gen-

1/ The Guidelines -- page 3-3.

eral government in the area) has the responsibility to hammer out the intergovernmental relations in developing the institutional and governmental arrangements to accomplish the most cost effective solutions to local water quality management.

Conclusion

1. EPA and HUD regulations and guidelines, for the first time, begin to spell out the relative responsibilities of State, basin, and metropolitan/regional levels of government for water quality management planning.

2. The guidelines recognize that oftentimes new "institutional remedies" are needed and should be proposed.

    - The fact remains, however, that the guidelines are new (January 29, 1971), and are imposed on existing planning and decision-making machinery that is not necessarily new, even though arrangements necessary between elements of this planning and decision-making machinery will be new.

    - Techniques and methods beyond the issuance of guidelines may have to be developed to achieve the levels of institutional innovation and smooth-working intergovernmental relations necessary to the accomplishment of the basic waste treatment works construction and water quality management mission of the Office of Water Programs, EPA.

The basic and very real problem that emerges is the knitting together of the planning and decision-making institutions and the perfecting of the intergovernmental relations:

1. at the Federal level (EPA and HUD);

2. at the State level (the State Water Quality Office and the State's Comprehensive Planning Organization);

3. basin planning arrangements; and

4. local intergovernmental areawide Metropolitan/Regional planning organizations.

Institutions at each of the four levels enumerated above exist and are in business. They have not, however, in the normal course of events, been clearly tied together in common cause to meet planning requirements in a timely fashion (in this case by July 1, 1973). Each State has its own division of labor between State agencies of water pollution control, health, natural resources, and state planning. And each has its own pattern of regional planning agencies that were initially sponsored and have grown up under a variety of special purpose federal and State programs -- the Economic Development Agency, the Farmer's Home Administration, the Soil Conservation Service, and HUD, to mention only a few sources of planning assistance. Areawide planning machinery has become increasingly more competent and more responsive to elected officials, but its piecemeal growth has left a set of institutions highly uneven in strength with irregular patterns of coordination between functional planning and comprehensive planning.

The law is clear. The Federal Guidelines are understandable. It is the perfecting of communication and mutual support at the State and areawide levels that poses the greatest challenge.

One other problem complicates the perfection of institutional arrangements necessary to accomplish the planning needs of the program. Since EPA's Water Pollution Control Program is essentially a "hardware" grant program, many key administrators at all levels of government are more used to the business of building and "getting the money out" to facilitate building, on the one hand, and are unfamiliar with planning and programming, on the other hand. People have a propensity to deal with the familiar and to shun the unfamiliar. Action agencies and administrators want action. It is that simple.

One conclusion is inescapable at this point, given the great differences between States and their areawide planning and programming agencies. There must evolve a total commitment to orderly planning and programming in order that the construction program can meet Congressional targets.

The programming inputs, thought through, resulting from basin and areawide planning, are the best possible insurance that the multibillion dollar construction program currently being debated by the Congress will mean more effective administration of the program, and more rational and economic application of the construction dollars available -- in short, genuine assistance to orderly program administration.

As stated, planning deadlines are July 1, 1973. The 14 billion dollar program envisioned by new legislation is authorized in FYs 1972, 1973, 1974, and 1975. Hence, even though there has been a great deal of

activity in the construction program over the past several years, the great thrust, and by all odds, the greatest dollar expenditures, are yet to come. Planning and programming processes must be in place to meet these construction and expenditure demands.

While the planning machinery is being cranked up, the construction grant program will, of course, continue, based on interim plans.

There is no possible way that planning and programming can hold up or delay the construction grant program. It can, in the long run, only aid and assist in meeting serious National commitments to clean up the Nation's waters.

II. AN EXAMINATION OF THE LINES OF COMMUNICATION AND THEIR EFFECTS ON WATER QUALITY MANAGEMENT PLANNING

Intergovernmental Lines of Communication Defined

Before setting forth a series of action recommendations, it is essential that the institutional framework within which water quality management planning takes place is clearly understood.

First, the institutional framework is intergovernmental, involving all levels of government and requiring a high level of intergovernmental cooperation.

Secondly, the primary and most closely knit intergovernmental channels of communication are based on the flow of dollars. The power to grant or withhold dollars includes the clear authority to establish performance standards and time tables for actions.

Thirdly, the weakest part of the intergovernmental chain are those links that require cooperation with no apparent money relationships.

The chart on the following page indicates the primary lines of communication between the levels of government and the agencies involved in water quality management planning. Solid lines indicate direct relationships backed up by dollar flow. The dotted lines indicate necessary cooperative and coordinative relationships not backed up by dollar flow. It is these latter relationships that the most careful attention must be given to by those with overall water quality management planning responsibilities, particularly at the state level.

Within this frame, the institutions dealing with water quality management planning will be examined.

1. Federal Level

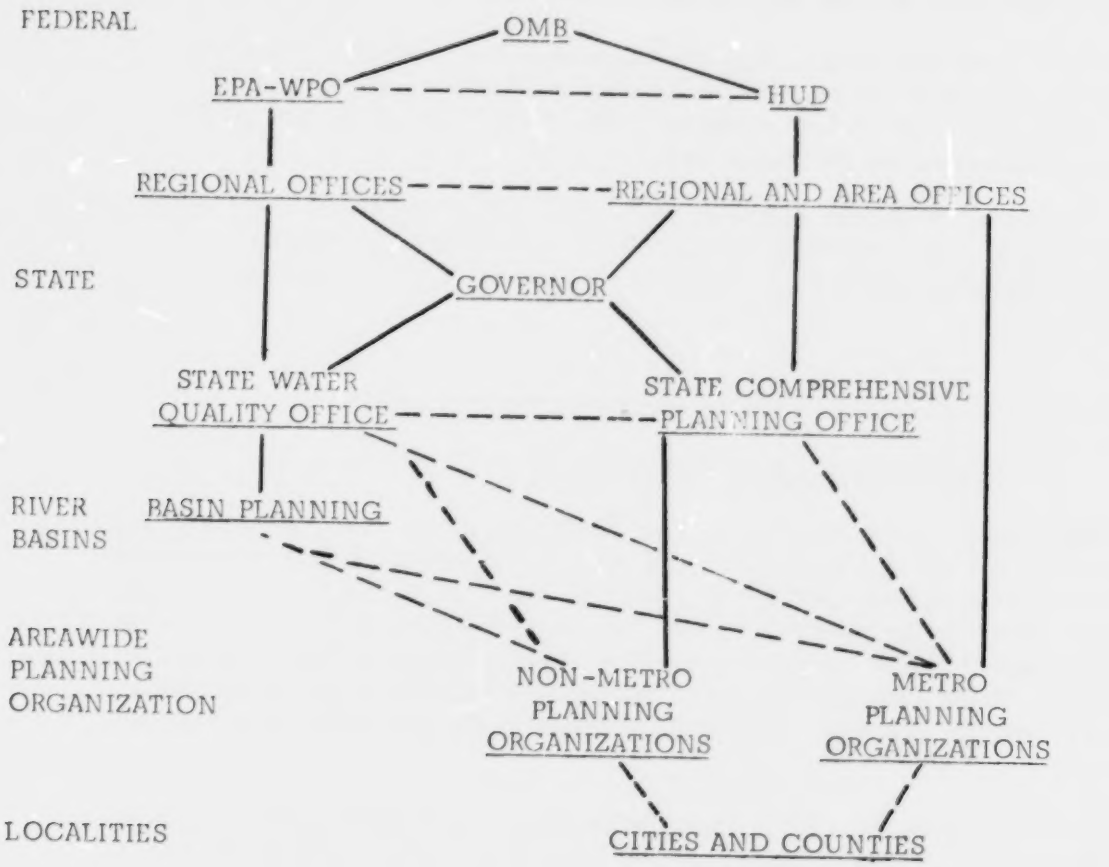
In matters of water quality management, the principal actors at the Federal level are the Environment Protection Agency, the Department of Housing and Urban Development, the Farmers Home Administration (Department of Agriculture), the Economic Development Administration, and the Office of Management and Budget of the Executive Office of the President.

The Executive Departments and agencies have operational, related to grant-in-aid, functions. OMB is charged with significant management and coordination responsibilities within the Federal establishment.

Neither the Farmers Home Administration or the Economic Development Administration is currently a part of the agreement to the issuance of the Water Quality Management Guidelines. They should be. The massive challenges of

LINES OF COMMUNICATION FOR

WATER QUALITY MANAGEMENT PLANNING



Relationships

——— Direct - based on dollar flow

- - - - Cooperative and Coordinative - minor or no dollars involved

dealing with water pollution problems where the people are has probably contributed to HUD and EPA getting together, while FHA and EDA continue to play their roles. FHA, of course, is restricted by law to providing assistance to locations with less than 5,500 population. Ultimately, FHA and EDA must become parties to the Federal coordinated approach.

Steps have been initiated in this direction with the formation of an "interagency committee to provide continuing coordination of sewer and water programs", as of September of 1971. FHA, EDA, EPA, and HUD are all represented on the committee.

This section of the report will deal with HUD, EPA, and OMB, their roles at the Federal level and their relationships with States, localities, and areawide planning agencies -- focused on water quality management planning.

A. The Department of Housing and Urban Development

(1) Funding and Control Relationships

The Department of Housing and Urban Development has had a long standing mission in the area of financial assistance to comprehensive planning under Section 701 of the Housing Act of 1954, as amended. Since its initial enactment in 1954, the 701 legislation has been amended regularly to expand its coverage. Today, units of general government ranging from States, counties, cities and regional organizations, metropolitan and non-metropolitan, are the principal recipients of funds under the planning assistance program.

The flow of dollars from HUD does not follow a consistent pattern, largely due to legislative inconsistencies that came about as, from time to time, the basic enabling act was amended.

HUD funds, for planning and programming purposes, the following levels of government directly:

States for State planning
Cities with populations of 50,000 and over
Metropolitan Region Councils.

HUD dollars for planning assistance flow through State agencies to fund the planning activities of the following:

Counties
Cities, or groups of adjacent communities, with populations of under 50,000
Regional Councils or Development Districts in non-metropolitan areas.

Thus, HUD, based on direct dollar flow, has a program overview of State planning, large cities (over 50,000) and metropolitan planning agencies.

Conversely, the States do not necessarily have a program overview of large cities or metropolitan planning agencies, since they do not administer the basic grant money involved.

States do have a program overview (i.e., they do administer the dollars involved) in planning for small cities, counties, and non-metropolitan planning areas.

In the administration of the Water Quality Management Planning Guidelines, therefore, States are usually entering into new relationships with Metropolitan Planning agencies in arranging for a unified planning response to meet Metropolitan/Regional (areawide) planning requirements (which must involve both metropolitan and non-metropolitan areawide planning agencies).

In Massachusetts, for example, the Governor has established, by Executive Order, eleven areawide planning districts. Of the eleven, nine are Metropolitan-area based, and as such have in the past had little or no direct program or funding relationships with the State. In Arkansas, of fourteen regional planning agencies, five are metropolitan (three of these are interstate -- to compound the confusion further -- one each including areas in Oklahoma and Texas, and the other including counties in Tennessee and Mississippi).

The areawide planning district systems of Massachusetts and Arkansas cover the entire State (i.e., no county or any geographical area is left out). In Florida, on the other hand, there are sixty-seven counties. The only areawide planning agencies are metropolitan, nine in all, whose combined jurisdictions cover only seventeen counties. Four of these agencies have only a one-county jurisdiction.

The point here is that the mission of accomplishing areawide water quality management planning is made much more difficult from a State point of view by the direct HUD - Metro Area funding-program overview relationship. States should have been in the act sooner. But the fact is that they have not, since the program initiation came from HUD by Congressional action. Few States have seen the need to buy in.

EPA dollars for waste treatment construction flow through the State, and must relate to a State (Governor) certified "Annual State Program ... Water Pollution Control Plan". EPA has established planning guidelines that must rely on areawide planning organizations over which the State has, in the past, had very little, if any, program control. All of these facts set up a situation where one of the real challenges is that of building new relationships between old organizations, namely the State and its metropolitan planning agencies, in order that EPA construction grant money can flow in an orderly and timely fashion.

HUD, of course, has also signed off and agreed to the Guidelines, but their historic funding and program control relationship with Metropolitan planning agencies does not help to weld together a clear Federal-State-local (areawide) hierarchy of planning and political decision making that is at the heart of the Water Quality Management Guideline philosophy in action. HUD's willingness to cooperate is one thing -- but their channels of communciation (established by Congress) for planning assistance builds organizational relationships contrary to the spirit of the Guidelines and the structure of EPA's Waste Treatment Facilities Construction Grant program.

(2) Planning Requirements

It is important to recognize the differences between comprehensive planning and functional planning.

The planning for a wastewater treatment system on an areawide basis is the planning for a single function. Highway planning is another function, as is housing or recreation.

All functional planning must have a common base in relation to the location of population and economic activity, projected growth patterns, and the social needs of the population.

Construction activities resulting from functional planning must be harmonious with the total growth patterns of the area.

The linking of functional planning to a common base and the insurance of balanced, harmonious development is accomplished through the comprehensive planning process.

HUD, in their Comprehensive Planning Assistance Handbook (MD 6041.1), defines the purpose of its planning assistance program as one "to assist state and local elected officials (e.g., governors, mayors, city councilmen, and county commissioners)" to

"a. Establish the comprehensive planning process as a continuing function of government, including the establishment and improvement of professional staffs to assist elected officials to make policy affecting urban and rural development;

b. Make comprehensive planning relevant to critical social concerns such as poverty, inadequate housing and educational opportunity, and social injustice;

c. Prepare and adopt plans, programs and budgets which affect development on a comprehensive continuing basis and which influence the allocation of scarce public and private resources, including the preparation of guides to channel Federal assistance to state and local governments;

d. Improve the quality and efficiency of land development and associated physical facilities;

e. Improve the quality of methods and analytic techniques used in the comprehensive planning process; and

f. Secure the participation of business firms and voluntary groups in the planning and development process."1/

In HUD Circular MPD 6415.1A, the Department defines the Comprehensive Planning Process as follows (an APO is an Areawide Planning Organization; an APJ is an areawide Planning Jurisdiction):

"GUIDELINES FOR AREAWIDE COMPREHENSIVE PLANNING. In carrying out comprehensive planning for an areawide planning jurisdiction, an APO should undertake the activities set forth below.

a. The Comprehensive Planning Process. It is essential that a continuing comprehensive planning process be developed and maintained. Such a process involves human and natural resources, as well as economic, governmental and physical concerns related to the development and well being of the APJ. Planning should be comprehensive in the sense that it encompasses elements for housing, employment, and other aspects necessary to address current and future problems of land use and development. Pro-

1/ MD 6041.1 -- page 1.

cedural matters should be so structured as to allow minority and low-income groups to significantly impact the decision-making process. Further, through comprehensive planning, programs should be effectuated to create areawide choices to house minority and low-income families. Additional programs should be structured as necessary to address problems of and interrelationships between educational facilities, employment centers, transportation, taxation, intergovernmental relations, etc., as they relate to housing and development. Basic components to be considered in the planning process are set forth below.

(1) Development of goals and objectives to provide a framework for planning and policy decisions, to relate functional elements to one another, and to relate the technical phases of the planning process to overall policy making. Goals are long term in nature, requiring periodic updating and modification as realistic alternatives for meeting such aspirations emerge. Objectives should be set forth in measurable terms and time periods whenever possible to enable evaluation of progress toward the stated goals.

(2) Identification of problems and opportunities as a basis for preparing a program to study and resolve problems and to meet jurisdictional goals.

(3) Systematic collection and analysis of data relating to population, economic factors, health, education, welfare services, land uses, transportation, community facilities, government organization and other factors relating to problems and opportunities.

(4) Development, evaluation, and testing of alternative courses of action to resolve the problems and to meet jurisdictional goals for consideration by the policy makers, affected interests, and the public.

(5) Development of a long-range comprehensive plan for the future development of the APJ. This may be basically a policies plan setting forth the agreed upon courses of action from item (4). The goals and objectives (item (1)) should be refined and adopted as a component of the plan. The plan should provide a coordinative framework for

functional planning with future needs and objectives expressed for the various functional areas based on such indices as population and employment characteristics, distribution and future estimates. When the functional plan element is undertaken by agencies other than the APO, such planning should be consistent with the goals, objectives, policies, future estimates, and other plan elements as set forth in the comprehensive plan.

(6) Development of legislative, regulatory and administrative measures to implement the comprehensive plan, including short-term action programs, fiscal plans and programming of capital investments and services together with budgetary measures.

(7) Updating and refining in response to new agreements on goals and policies, current data and conditions, new methods and techniques and generally new concepts and ideas about the future.

(8) Development and maintenance of systems to enable a continuing evaluation of the planning process and the measurement of the results of policy, objectives, program recommendations and implementation efforts."1/

HUD also requires that the policy making body of areawide (M/R) planning agencies be composed of elected public officials of units of local general government within the planning area of jurisdiction:

"Insofar as feasible voting representation from units of local government should be composed of elected officials or appointed chief executives responsible to elected officials."2/

All of the foregoing is implied in the "Guidelines Water Quality Management Planning" when they state:

"Areawide Planning Organizations.
The EPA Regional Office, jointly with the HUD Area Office and with the Governor or his designee will recognize Areawide Planning Organizations (APO's) guided by the HUD Areawide Planning Requirements."3/

1/ MPD 6415.1A, pages 12 - 14.
2/ MD 6041.1, page 41 -- guideline.
3/ The Guidelines -- page 1-5.

(3) Comment and Observations

There must be a joint three-way agreement in the designation of agencies to accomplish areawide water quality management planning, and further, such agencies must be:

- the areawide comprehensive planning agency,
- with a policy board composed primarily of elected officials of the units of general local government within the APO's jurisdiction.

The importance and wisdom of utilizing this intergovernmental planning and political decision making machinery, where it exists, lies in two directions:

- It ensures that water quality management planning (functional) becomes a part of and is related to the broader comprehensive and coordinative planning ongoing in the region, and
- That those who are politically responsible in the region (local elected officials) make the policy for the "institutional arrangements" necessary to carry out and to implement the region's water quality management plan.

The latter point is most significant when it is realized that more and more systems for the management of water quality are going to have to be developed and operated on an intergovernmental, areawide basis. As the Guidelines state:

> "The Metropolitan/Regional plan defines the strategy which results in the most cost effective solution for the waste water disposal problems within the planning area."[1/]

> The Guidelines go on to state:

> "This does not necessarily imply a single treatment facility for the M/R area; rather it implies a coordinated and unified planning effort within a M/R area to assure the most cost effective water quality management program for the area...". [2/]

Who should, indeed, wrestle with the problems of new, innovative, institutional arrangements than those who have to defend these decisions among their constituents while running for re-election to office.

1/ The Guidelines, page 3-1.
2/ Ibid.

This language also properly positions special purpose districts -- such as sewer districts or river basin authorities. Over the past fifty years, State and local governments have sought to solve special purpose problems by the creation of special purpose districts. Too often these districts develop a political independence from the local jurisdictions they serve.

The procedures set forth in Office of Management and Budget Circular No. A-95, which establishes regional planning agencies as clearinghouses to review applications for Federal assistance (including applications for construction grants under Section 8, of the Federal Water Pollution Control Act, as amended), states:

> "Comments and recommendations made by or through clearinghouses with respect to any project are for the purpose of assuring maximum consistency of such project with State, regional, and local comprehensive plans."1/

A-95 also provides that comments may include information about:

> "...The extent to which the project is consistent with or contributes to the fulfillment of comprehensive planning for the State, region, metropolitan area, or locality."1/

These procedures, coupled with the fact that the same regional planning agencies will accomplish metropolitan/regional (areawide) water quality management planning under the terms of the Guidelines, assures the fact that special districts will be properly positioned to where they become instruments that can be used to carry out and implement functional and comprehensive planning and development policy established by, in fact, a consortium of units of local general government acting through their areawide regional council.

B. Environmental Protection Agency - Water Programs Office

The Water Program Office administers the Federal Water Pollution Control Act, as amended. Its lines of communication, based on dollar flow, are relatively simple. As a matter of law and policy, EPA-WPO deals directly with the Governor of each State. Usually, the Governor designates a State officer, usually his director of the State's Water Quality Office, as his representative in dealing with EPA-WPO, although the Governor personally must sign off on the State's annual Program Plan.

There are three primary sources of money available to EPA-WPO to deal with water quality management matters: Construction Grants for Wastewater

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1/ OMB Circular No. A-95, page III-A-8.

Treatment Works (Section 8), Comprehensive Basin Planning Grants (Section 3c), and State and Interstate Program Grants (Section 7).

EPA-WQO has other programs dealing with research and demonstrations, monitoring, manpower training, information and technical assistance, for example. The basic programs outlined above, however, are the key to the Nation's water quality management commitment.

(1) Section 8, Construction Grants, are to assist in the construction of waste treatment works by State, municipal, intermunicipal, or interstate agencies.

Grants are allocated to States on a formula basis related to population, and relative per capita income in the State.

Local matching requirements vary, depending on State participation as follows:

30 to 33 percent grant, no State matching program;
40 to 44 percent grant, 30 percent State matching program;
50 to 55 percent grant, 25 percent State matching program together with provisions that effluent discharge is to meet enforceable approved State water quality standards.

One important consideration with regard to Section 8 funds relates to the phasing of payments of grant funds. Essentially, this is a reimbursement program. Grants payments are usually based on 25, 50, 75, and 100 percent of construction completed, or equipment delivered to the site. The States and localities, in other words, must provide "front end money" to finance construction prior to receiving grant money.

Obligations during F.Y. 70 amounted to $425,600,000; during F.Y. 71, $1,200,000,000. F.Y. 72 obligations are currently estimated to run on the order of $1,900,000,000.

The channels of communication for these funds are simple and direct. The Federal Government (EPA-WPO) deals only with States. The States deal with the localities.

(2) Section 7, Program Grants, are for basic support to State water quality and pollution control offices to assist them in establishing and maintaining adequate measures for prevention and control of water pollution.

Grants are allocated to States on a formula basis related to population, the extent of the water pollution problem, and financial need. Grants range from 33-1/3 to 66-2/3 percent, depending on per capita income in the State. Obligations incurred during F.Y.s 70 and 71 were $10,000,000 each year. It is estimated that F.Y. 72 obligations will amount to $15,000,000.

This is a direct Federal - State grant and the lines of communication are clear and uncomplicated.

Each State agency receiving a program grant under Section 7 prepares an annual State Program Plan which constitutes an application for Section 7 funds. The program plan covers the broad range of water pollution control activities that the State engages in. It sets forth the State's goals, planned activities, authorization to act and budget, among other things.

Included in the submittal are one and five year schedules, which detail "municipal waste treatment needs". These schedules, geared to actual and anticipated allotment of Section 8 Construction funds list, by jurisdiction, river basin, receiving stream, and population served, the cost, capacity, and State contribution to a particular water pollution control facility. During the fiscal year following submittal of the one year list, no local project can be funded that is not listed. The schedule also indicates the status of the project with regard to its conformity with a regional plan.

The Guidelines indicate, with regard to State Program Plans, that:

> "Plans prepared by local planning organizations (i.e., Basin and Metropolitan/Regional - author) are to provide the basis for the State program plan submitted annually to EPA under Section 7 of P.L. 660, i.e., the State program

plan should describe the State Planning Program and the strategy of accomplishing that program."1/

This is a very important tie-back to the basin and areawide planning process and the planning system that the State will set up under the provisions of the "Guidelines -- Water Quality Management Planning".

The State must utilize its problem-stating and problem-solving tools -- its monitoring, measuring, basin and areawide planning process -- to set action and spending priorities, and to display proposed projects and priorities on its annual listing of "Municipal Waste Treatment Needs" submitted with its annual State Program Plan.

EPA's instructions for preparing the annual State Program Plan and Grant Application, state:

> "The Act, as amended, emphasizes the need for preventing pollution and, thus, the necessity of a continuing planning activity as an essential part of the process of establishing and implementing water quality standards. Planning is a continuous process which develops and keeps current the State's "water quality plan" to meet present, near future, and long-range needs for water of suitable quality to serve projected use. In general, the various basin and metropolitan/regional plans provide the basis for preparation of the State's water quality plan. The Program Plan sets forth the State's strategy for developing and implementing the basin/metro/regional plans proposed."2/

(3) Section 3c, Water Quality Management Planning Grants, are to assist in the development of comprehensive water quality control and abatement plans in river basins or portions thereof, such as Metropolitan/Regional (areawide) plans.

Grants made have a statutory limitation of three years, although, administratively, applicants are urged to complete projects within two years so that the plan will more rapidly impact overall water pollution control programs. Fifty percent of the costs of planning must be provided locally under this program.

1/ The Guidelines, page 1-17.
2/ See Instructions contained in EPA Form 5750-1 (3-71).

This program has been notoriously underfunded, considering the planning requirements that the Congress has written into the statutes.

Over the past five years, Congressional appropriations have been:

F.Y. 68	$500,000
F.Y. 69	1,250,000
F.Y. 70	1,780,000
F.Y. 71	2,070,000
F.Y. 72	5,370,000.

The authors estimate, conservatively, that upwards of $100,000,000 a year over the next four years, as a bare minimum, will be required to meet the planning mission very properly spelled out in the "Guidelines -- Water Quality Management" -- which mission is, in fact, based on Congressional mandate for planning.

The annual dollar build-up would, of course, have to relate to State, basin, and areawide demonstrated capacity to constructively produce necessary plans and programs in a timely fashion.

The aggregate four year spending rate suggested above is less than 3 percent of the construction grant obligation authority contained in legislation now before Congress, which would anticipate construction expenditures on the order of $14,000,000,000 between F.Y. 72 and F.Y. 75. In fact, the minimum annual planning expenditures suggested above are but 2% of $20,000,000,000 in construction money which has been suggested by the Congress.

The lines of communication of the 3(c) program based on dollar flow are clean and direct, provided it were adequately funded. Applications are made by the Governor and he designates the recipient agencies.

The river basin and areawide planning Guidelines provide for the designation of planning agencies to accomplish metropolitan/regional areawide water quality management planning by the Governor. His designations are concurred in by HUD and EPA regional offices as being consistent with the Guidelines.

C. The Office of Management and Budget - Executive Office of the President

The management side of OMB in The Executive Office of the President is charged with the responsiblity for the coordination of Federal program administration. Important policies of the Executive Office of the President are promulgated through the issuance of OMB Circulars which are addressed to the Heads of Federal Executive Departments and Establishments.

A brief review of two key OMB Circulars is included here because of their effect on the manner in which planning for water quality management is conducted.

(1) Circular No. A-85 provides that prior to the issuance of Federal rules, regulations, standards, procedures, and guidelines, comments will be sought from chief executives of state and local governments. The Advisory Commission on Intergovernmental relations manages the comment process. Comments from chief executive officers are sought through their national, State, and local government associations: National Governors' Conference, Council of State Governments, International City Managers' Association, National Association of Counties, National League of Cities, and United States Conference of Mayors.

OMB also circulates proposed Guidelines to other affected or interested Federal agencies.

Circular No. A-85 is mentioned because the "Guidelines -- Water Quality Management Planning" did go through this comment process prior to its issuance. Extensive discussions were held, not only on an interagency basis at the Federal level, but with the State and local government associations enumerated above. In short, the best thinking of many people and groups went into and is represented in the Guidelines.

(2) Circular No. A-95

This Circular has its legislative basis in Section 401(a) of the Intergovernmental Cooperation Act of 1968, which provides, in part, that

> "The President shall ... establish rules and regulations governing the formulation, evaluation, and review of Federal programs and projects having a significant impact on area and community development...".

The President's Memorandum of November 8, 1968, to the Director of the Bureau of the Budget ("Federal Register," Vol. 33, No. 221, November 13, 1968) provides:

> "By virtue of the authority vested in me by Section 301 of Title 3 of the United States Code and Section 401(a) of the Intergovernmental Cooperation Act of 1968 (Public Law 90-577), I hereby delegate to you the authority vested in the President to establish the rules and regulations provided for in that section governing the formulation, evaluation, and review of Federal programs and projects having a significant impact on area and community development, including programs providing Federal assistance to the States and localities, to the end that they shall most effectively serve these basic objectives..
>
> "In addition, I expect the Bureau of the Budget to generally coordinate the actions of the departments and agencies in exercising the new authorizations provided by the Intergovernmental Cooperation Act, with the objective of consistent and uniform action by the Federal Government."1/

Part I of Circular No. A-95 encourages "the establishment of a network of State, regional, and metropolitan planning and development clearinghouses which will aid in the coordination of Federal or federally assisted projects and programs with State, regional, and local planning for orderly growth and development."2/

Clearinghouses are to evaluate "the significance of proposed Federal or federally assisted projects to State, areawide, or local plans and programs, as appropriate."3/

The proposals are forwarded to the Federal agency administering the program involved, with local clearinghouse comments regarding the "extent to which the project is consistent with or contributes to the fulfillment of comprehensive planning for the State, region, Metropolitan area, or locality", and "the extent to which the project contributes to the achievement of State, regional, metropolitan, and local objectives ... as follows:

(1) Appropriate land uses for housing, commercial, industrial, governmental, institutional, and other purposes;

(2) Wise development and conservation of natural resources, including land, water, minerals, wildlife, and others;

1/ OMB Circular No. A-95, page III-A-3.
2/ OMB Circular No. A-95, pate III-A-5.
3/ Ibid., page III-A-6.

(3) Balanced transportation systems, including highway, air, water, pedestrian, mass transit, and other modes for the movement of people and goods;

(4) Adequate outdoor recreation and open space;

(5) Protection of areas of unique natural beauty, historical and scientific interest;

(6) Properly planned community facilities, including utilities for the supply of power, water, and communications, for the safe disposal of wastes, and for other purposes; and

(7) Concern for high standards of design."1/

The three key EPA-WPO programs referred to above -- construction, program, and planning grants -- are all covered by the clearinghouse review process. This requirement is reflected in the Guidelines.

The clearinghouse process is relatively new, the first A-95 Circular being issued July 24, 1969 (it was subsequently revised and extended effective April 1, 1971). Prior to A-95, review and comment processes were established for metropolitan areas during 1967.

In this short period, there have been organized some 208 metropolitan areawide clearinghouses and some 172 non-metropolitan areawide clearinghouses, 380 in all. These clearinghouses cover 1680 counties in the United States, or about half of the total counties. OMB officials estimate that 85% of the country's population resides in these covered counties.

HUD has of course worked closely, over a number of years, in the development of planning programs and planning capacities of the metropolitan planning agencies.

The significance of A-95 to the Water Quality Management Planning process extends beyond the review and comment procedure it encourages, as important as that is. The clearinghouses are metropolitan/regional comprehensive planning agencies, the same agencies that are envisioned by the Guidelines as being the agencies to accomplish Water Quality Management Planning. These facts encourage a high level of local government participation in the areawide water quality planning proceedings and in the development of the "institutional arrangements" that are so key to the implementation of that planning.

1/ OMB Circular No. A-95, pages III-A-8 and 9.

Conclusions -- Federal Level

Although administratively independent of each other, the Environment Protection Agency, Water Programs Office, and the Department of Housing and Urban Development have bridged the potential communications gap. The joint issuance of the Guidelines for Water Quality Management Planning and the June 7, 1971 "Joint Agreement for Inter-Agency Coordination in Planning and Development" are the key evidence to this communication.

Procedures and the influence of the President's Office of Management and Budget have materially assisted in developing this common approach to water quality management planning.

The Federal establishment is a vast thing. Each Department and Agency has many separate offices within it. HUD and EPA also have regional offices. In accordance with a Presidential directive of two years ago, EPA and HUD together with ten other Departments and Independent Agencies adopted or were committed to a uniform system of regional boundaries with regional headquarters located or to be located in the same cities. Ten uniform regions (with the same groups of states relating to each regional office) have been established. In addition, HUD has established a series of area offices responsible to each of the regional offices.

The accomplishment of the planning mission outlined in the Guidelines requires the development of very close coordinative relationships between EPA and HUD at the regional and area office level. They are, as well, integral links in the planning chain between the States, their basin and areawide planning organizations, and the localities where actual sewage treatment plants are to be constructed.

2. State Level

Two and sometimes three State agencies have prime roles to play in water quality management planning. These are the State's water quality management agency (pollution control agency), its State Planning Agency or Office, and, on occasion, a Department of Local or Community Affairs.

A. State Water Quality Management Office

This is the key agency that schedules and programs the expenditure of Section 8, Construction Grant money. It prepares the Annual State Program Plan, which allocates priorities and identifies locations of proposed construction of waste treatment works. The Guidelines indicate that the Annual State Program Plan, which provides the basis for an EPA Program Grant to fund the State Water Quality Management Office under title 7 of P.L. 660, "should describe the State Planning Program and the strategy for accomplishing that program."[1/]

1/ The Guidelines -- page 1-17.

To put this Guideline language another way: the Program Plan should indicate the names of the areawide planning organizations who have been formally designated by the Governor to do areawide Water Quality Management Planning and the status of their planning and the funding therefore. EPA, by specific directive, should emphasize the fact that the Program Plan should indicate the arrangements that have been made and the time table for accomplishing the required basin planning and its relationship to areawide planning.

State funding and assistance for local construction of waste water treatment works and for basin and areawide planning are, in addition, key parts of the Annual State Program Plan.

Part III of OMB Circular No. A-95 provides for the Governor, through the State clearinghouse, to review and comment on State plans prepared by State agencies as a requirement or condition of assistance under various Federal programs. Section 7 and proposed allocations of Section 8 assistance as set forth in the Annual State Program Plan is one such plan that falls under Section III.

As the Circular states, the Governor will "be given the opportunity to comment on the relationship of such State plan to comprehensive and other State plans and programs."[1/]

Of course, EPA itself requires that the Governor sign off on the State Program Plan, but the type of review afforded by these provisions of A-95 gives one more chance for coordinative interface between the State's Planning Agency and the Water Quality Management Agency and the perfection of the State's Water Quality Management structure and process.

Each State Water Quality Management Office should have a planning division who would work with the State Comprehensive Planning Office and the State's areawide planning agencies to develop the Water Quality Management Planning structure for the State. The planning division would develop the necessary arrangements for the accomplishment of river basin planning and relating the technical aspects of basin planning to areawide planning. In most States, the State Water Quality Management Office accomplishes basin planning on its own account. Consultants can be

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1/ OMB Circular No. A-95, page III-A-15.

used or there could be a system of one or more river basin authorities, who could be assigned the work, which would be coordinated by the State Water Quality Office.

B. State Comprehensive Planning Office

Almost all of the States have a State Planning Office. The principal function of such an office is to advise the Governor on planning matters. The Office should be the central location for the development of basic information necessary to everybody's planning, such as population studies and forecasts, and studies of economic trends and employment.

More and more, Federally funded programs require a State plan as a condition to the grant of funds. The State Planning Office would act as a coordinator of such plans, which normally would be prepared in the Agency where actual operations are located.

Increasingly, Governors have, by Executive Order, established a set of sub-State regions for local intergovernmental planning purposes. The initial studies establishing such a system of regions have regularly been done by State Planning Offices, who in turn work with these regions in the development of their planning programs.

It is usually the State Planning Office which administers HUD "701" planning assistance funds for communities under 50,000 in population and for non-metropolitan areawide planning agencies. In some States, this function is accomplished by a Department of Community Affairs.

State Planning Offices accomplish studies and plans in particular areas of concern to assist the Governor in the development of new policies and new programs. State concern with its statewide land use pattern, the development of urban growth policy and new community development as provided for under the new Urban Growth and New Community Development Act of 1970, is one such example.

State Planning Offices engage in comprehensive State planning, tying together policies of State government concern.

In this connection, State Planning Offices are usually designated by the Governor as the State clearinghouse under the provisions of OMB Circular No. A-95, discussed earlier.

State Planning Offices can provide invaluable assistance to State Water Quality Management Offices in the development of the Water Quality Management Planning machinery for the State. Where Departments of Commun-

ity Affairs play a role in servicing areawide planning agencies, they should be involved as well. The Water Quality Management planning structure for any state must be developed as a joint venture between the state's Water Quality Office and its State Planning Office.

Conclusion -- State Level

The basic responsibility, under Federal Water Pollution Control legislation, for the administration of these funds in the States, rests in the State Water Quality Management Office, wherever it is located on the State's organizational chart. EPA- WPO under Federal legislation requires planning and the development of a planning system as a condition to its construction grant program. Plans for river basins and on an areawide basis are to be complete by July 1, 1973.

In those States where there is no State Planning Office or local areawide planning agency structure, the State Water Quality Management Office must "go it alone" and accomplish the total planning job. In States where the other planning institutions do exist, their help and assistance should be actively sought, for these planning resources are essential to meeting the charge set forth in the Guidelines.

3. Areawide Planning Organizations

For the purposes of this paper, there does not need to be any differentiation made between metropolitan and non-metropolitan areawide planning organizations. Although, as has been reported above, there are differences in their planning funding from HUD, the basic water quality management planning job is the same. The only real differences are differences of degree brought on by population size and distribution.

Over recent years, areawide planning organizations have become more experienced as the Congress writes more areawide planning requirements into functional grant in aid programs. Areawide planning on an intergovernmental basis is now required as a condition to receipt of certain grant funds for programs dealing with:

Water and Sewer (HUD - FHA(Ag) - EPA)
Economic Development (EDA)
Air Pollution Control (EPA)
Health Facilities and Hospital Construction (HEW)
Juvenile Delinquency (HEW)
Housing (HUD)
Historic Preservation (HUD)
Open Space Land Acquisition (HUD)

Law Enforcement Assistance (JUSTICE)
Manpower (LABOR)
Highways (TRANSPORTATION)
Urban Mass Transit (TRANSPORTATION)
Community Action Operations (OEO).

Where there is an areawide planning agency, and where it has been designated as the clearinghouse under OMB Circular No. A-95, the areawide agency is in effect the coordinator of all regional and areawide planning and Federal construction grant applications to carry out such plans. The review and comment procedures set up under A-95 and required by HUD regulations ask the clearinghouse to set forth the relationships between functional planning and applications for grants with overall areawide comprehensive planning and the goals and objectives of the communities in the region. Grant applications have to be consistent with the areawide functional planning and programming which in turn must be consistent with the areawide comprehensive plan.

Areawide planning agencies have had a variety of antecedents. Almost all of them have come into existence, however, in order to permit the communities in the area to become eligible and to continue eligibility to receive Federal financial assistance.

The policy boards of areawide agencies are representative of the units of local general government (cities and counties) in the region. It is at this level that intergovernmental policy matters are settled and established. In effect, the Congress has asked local cities and counties to get together through their areawide planning organizations and to determine among themselves those matters where intergovernmental cooperation at the local level is essential.

Cities and counties by themselves and individually just simply cannot cope with the transportation or water pollution problems, for example, of an entire region.

State and Federal governments can set standards and offer incentives for action, but the localities acting together must make the local institutional arrangements to meet these standards on the ground and in the region.

It must be admitted that the capabilities and capacities of local regional councils to do a technical planning job and to arrive at policy consensus vary widely as between the almost 400 areawide agencies in the country that have been recognized as regional clearinghouses for OMB Circular No. A-95 purposes. Nevertheless, the fact remains that these areawide

organizations are taking their place as an integral and essential part of the governmental structure of the country. State Water Quality Management and State Planning Offices should consciously engage in the building and strengthening of these agencies. Too much depends on them to do otherwise.

III. CURRENT OBSERVED IMPEDIMENTS TO THE ACCOMPLISHMENT OF WATER QUALITY MANAGEMENT PLANNING AND RECOMMENDATIONS FOR EPA ACTION

Findings

As a result of the interviews held in the States and EPA Regional Offices visited and extensive contacts with planning organizations in many other states, a series of problems have been identified. These problems currently pose serious impediments to the development of the plans called for by the "Guidelines". Action recommendations are made in light of these defined problem areas.

1. TO DATE THERE IS GENERALLY A LACK OF WELL-DEFINED AND FIRMLY ESTABLISHED INTERGOVERNMENTAL INSTITUTIONAL ARRANGEMENTS FOR COORDINATING THE WATER QUALITY MANAGEMENT PLANNING TASKS AND IMPLEMENTING ACTIVITIES OF THE VARIOUS GOVERNMENTAL UNITS.

As has been pointed out in this paper, the development of plans having the sophistication and thoroughness called for by the "Guidelines" requires closely coordinated action by several sets of governmental units. Basin planning alone will require coordination of the activities of the State Water Quality Management agency, the State Water Conservation and Development agency, Basin Planning Organizations, if any are designated, and interstate basin organizations.

A second set of agencies focuses on areawide, comprehensive planning. This set includes the Office of State Planning, the Community Affairs agency, if such exists, the sub-state areawide planning organizations, and other areawide organizations with responsibilities related to water quality. These agencies have highly varied capabilities, authorities, resources, and sources of support.

Formal and clearly recognized intergovernmental arrangements are needed for planning both within and between these sets of agencies. The existing relationships in the three States surveyed varied greatly in strength and extent. Few existing and established relationships were built on the "Guidelines". There is a need to even out the arrangements, bringing in units not currently included, and strengthening uncertain or little used channels of coordination. There is also a need to set up intergovernmental processes specifically geared to water quality management planning within the institutional framework described in Section II of this report.

Intergovernmental arrangements need to be based on formal agreements on the division of labor, the exchange of resources and information, the timing of activities, and the coordination of decisions. Such arrangements also depend on personal contacts and commitments to daily, informal cooperation. Both formal and informal relationships need to be strengthened for water quality management planning. At the State level, the State Water Quality Management Office has to be the lead agency in making these arrangements with strong involvement and cooperation from the State Comprehensive Planning Office.

2. THE STATES LACK SUFFICIENT RESOURCES TO MEET THE GUIDELINES.

It is clear that neither the state agencies nor the areawide planning organizations had the funds, manpower, data, and equipment needed for developing water quality management plans. There is danger that the deadlines will not be met or that the planning organizations will be forced to neglect their other on-going activities in order to complete the plans in time. The provision of additional funds by state legislatures and local governments without substantial federal assistance is not now happening on a wide scale. The shortage of State funds due to the recession and past lack of supportive attitudes toward comprehensive planning in terms of State priorities make local resources difficult to tap. Responsible agencies will clearly be turning to the applicable sources of Federal planning assistance with the result that they will also be insufficient to meet the demand.

EPA has a clear responsibility to redress this widespread lack of resources. Legislation now pending before Congress does provide a broader funding base for planning.

3. THE STATES HAVE NOT ESTABLISHED SUFFICIENTLY DETAILED AND INTEGRATED WORK PLANS FOR BASIN AND AREAWIDE PLANNING.

The extent to which responsible State officials have begun to convert the "Guidelines" into work programs vary greatly. Those States with some thinking underway tend to focus on the basin planning activities of the water pollution control agency, rather than on the work accomplished and programmed through areawide planning organizations.

There is little recognition of the tasks involved in integrated comprehensive, areawide planning with functional planning in water quality management. A complete and detailed work plan that encompasses both basin and areawide planning is essential to the development of task oriented intergovernmental arrangements and to the assessment of resources needed for planning. Although the areawide planning organization is required to adopt the EPA required metropolitan/regional planning as part of their comprehensive planning process, the state role becomes important in coordinating the planning activities at the state and areawide levels to avoid duplication.

It is recognized that all areawide planning agencies receiving HUD 701 funds are required to develop work plans and programs. What is being said here is that State Water Quality Management and State Planning Offices do not have copies and generally are not cognizant of these work plans. They should be.

In order for the State Water Quality Office to adequately complete the statements required by Section 7 of the Water Pollution Control Law, the annual State program plan, and to enunciate completely the State's "strategy for accomplishing that program", a clear understanding of where each areawide planning agency stands in its own water quality management planning is essential.

Integration of State level basin planning work programs with each areawide planning agency work programs will be necessary to the development of such a programmed strategy at the State level.

In a new joint letter to regional offices issued in late September, HUD and EPA have issued instructions that will begin to work toward this end. The instructions state:

> " ... it is requested that for each State, the EPA and HUD Regional Offices meet, and develop, with the State water quality and comprehensive planning organizations, procedures for coordinating how the planning requirements are to be accomplished through existing APO's (areawide planning organizations) and State agencies ... The agreements developed should be completed by December 31, 1971."

4. THERE IS CONFUSION CONCERNING THE INTERPRETATION OF SEVERAL KEY PROVISIONS OF THE "GUIDELINES".

Disagreements and uncertainties have arisen concerning

- the content of the various plans and their interrelationships, especially the Basin and Areawide Plans as they relate to State Program Plans under Section 7, State Implementation Plans under Section 10, and Engineering Design Plans for projects receiving construction grants under Section 8 of the FWPCA as amended.

- the relationships between the time frames for interim plans, fully developed plans, and the scheduling of construction projects.

- the relationsips between the boundaries of Basin and Areawide Planning Jurisdictions and Organizations.

Confusion on the relationships between the various plans has arisen because of piecemeal development of planning requirements. The Guidelines definition of the differences between basin and areawide plans appears to State officials to call for some duplication. There is a need to review the content of the various plans with the objective of clarifying and simplifying the States' paper work. Although the Guidelines seem quite clear to the authors of this report, when related to past practices difficulties in interpretation seem to arise. These difficulites should be worked out as the Guidelines are in fact applied and the intergovernmental structure for Water Quality Management planning is perfected and work is actually done.

Problems arise in fitting presently scheduled construction schedules, interim plans, fully developed plans, and the Annual Lists together in a unified time frame. The scheduling of "interim planning to lead in a logical sequence toward fully developed plans within the least possible

amount of time" is specified by the Guidelines. The Guidelines also state that interim plans may be used "prior to July 1, 1973" and that "facilities construction grant awards" will not be made in the absence of water quality management plans after July 1, 1973. Presumably, grant awards made during fiscal year 1973 will be based on interim plans even though some of the actual construction activities will occur after the July 1973 deadline. The States need additional guidance on the time frame to be covered by each plan submitted between now and the deadline.

It is quite clear to the authors of this report that most of the so-called confusion that is arising is in reality based on the fact that the Guidelines are new and that it is easier to excuse lack of action on the basis of "confusion and conflict" than it is to, in fact, study, seek understanding, and apply the planning system that the Guidelines spell out. Most of this kind of "confusion" will work itself out as state agencies find that EPA and HUD mean business and that the Guidelines are firm requirements.

5. THERE IS A GENERAL LACK OF RECOGNITION OF THE VALUE OF WATER QUALITY MANAGEMENT PLANNING CONDUCTED IN THE CONTEXT OF LONG RANGE, COMPREHENSIVE PLANNING.

This problem stems in large part from past emphasis of pollution control activities on construction of waste treatment facilities, with or without planning. Sanitary engineers have usually been in the position of designing plants to correct for known and obvious deficiencies in water quality due to untreated waste loads. The "Guidelines", with their emphasis on basin, areawide, and comprehensive planning are a big step from the "fix it" or "catch up" orientation of past efforts. Because of this historic emphasis and due to basic unfamiliarity with planning and the planning process, there are many water pollution control personnel who fear that planning will mean red tape, paper exercises, and delay, rather than a means of saving limited resources. There is little appreciation for the savings that can result from considering basin and regional alternatives or from controlling land use, both of which are essential parts of the planning process.

6. VERY FEW ADEQUATE PLANS HAVE BEEN PREPARED.

Generally speaking, the plans that have been prepared have been inadequate. Interim plans that have been prepared tend toward individual project justifications rather than elements of broad water quality management plans. Alternatives and most cost-effective solutions have not been carefully examined.

As time goes on, a very much higher level of performance is going to have to be demanded.

Metropolitan/regional plans are going to have to be prepared in sufficient detail that engineering design contracts can be let based on the plans. Engineering design firms so retained would not then have to go back and recalculate population, land use, catchment areas, waste loads, and other factors.

Metropolitan/regional plans have erred on two sides. One, they may be too general and not in enough detail to establish priorities and provide the basis for letting construction design contracts. Or, two, they have simply been "plumbing plans", lacking in consideration of future land use, population trends or trends in economic activity.

As experience is gained, and as planning capability is established, both basin and areawide plans will have to consider the adequacy of and need for clear and reasonable land use controls as an integral and essential part of water quality management planning. This is particularly true of basin plans developed at the State level. Control of future location of economic activity on a basin-wide basis will become more of a concern of State governments. This is one point where close working relationships between the State Water Quality and Comprehensive Planning Offices is absolutely essential.

Basin plans have in the past relied too heavily on monitoring and measuring at the expense of looking to patterns of future development. A good deal of this emphasis has been the result of the need to correct past deficiencies and a reluctance to seek an understanding of, much less to direct, patterns of future settlement and development.

All planning agencies, State, areawide, and local, that receive HUD planning assistance money (701) are required by law to include a housing element in their comprehensive planning program. While these housing elements have not generally been completed around the country, this is one more area for planning integration. There should be complete integration of water quality management plans with housing and land use planning and programming at the State and areawide levels. Land use controls at the State and areawide levels must play an increasingly critical role in maintaining the validity of water quality management plans.

By the July 1, 1973 deadline, these matters of planning integration should be assured and the quality of plans prepared should be vastly improved.

Recommendations

In addition to some suggestions contained in the foregoing problem statements, it is strongly urged that EPA-WPO formally organize a national series of workshops that would involve all EPA and HUD Regions, and HUD Area Office people. State Water Quality Management Office and State Comprehensive Planning Office personnel would be invited.

Perhaps five such workshops could cover the entire country. On the other hand, it may be desirable to have one such workshop series for each of the Federal regions.

The subject matter to be covered in lectures, panel discussions, and question and answer periods would include:

1. Interpretations of the Guidelines
2. Clarification of the respective HUD and EPA roles
3. Water Quality Management Planning Work Program development for
    a. Basin Planning
    b. Areawide Planning
4. Suggestions for perfecting intergovernmental institutional arrangements to accomplish the planning mission contemplated by the Guidelines
5. Relation of Interim Plans to completed functional Water Quality Management Plans
6. Plan and project application processing procedures
7. Perhaps, some show and tell success stories based on case histories.

Properly developed written materials and visual aids should be prepared to maximize the teaching benefits of the workshops.

Related to the above suggestions is a recommendation that a joint HUD-EPA letter be sent to all Regional and Area Offices to the effect that by a certain deadline, each State would be requested to file an organizational plan for the accomplishment of their Water Quality Management Planning. Such a plan would clearly indicate the organizational arrangements made to accomplish basin planning and areawide planning. The designated APOs and APJs would be set forth. The State's organizational report should be signed off by both the Water Quality Management Office and the State Comprehensive Planning Office. If separate Departments

of Community Affairs are in existance, they should be a part of the development of the organizational plan.

Once such an organizational plan is developed and filed, the Annual State Program Plan submitted under Section 7 would reflect updating of the organizational plan and the strategy for accomplishing the State's planning program.

Instructions for the preparation of the annual submittal under Section 7 should be examined annually so that State Program Plans will reflect the dynamics of the Nation's Water Quality Management Program as it develops and approaches the clean water goal set by the legislation.

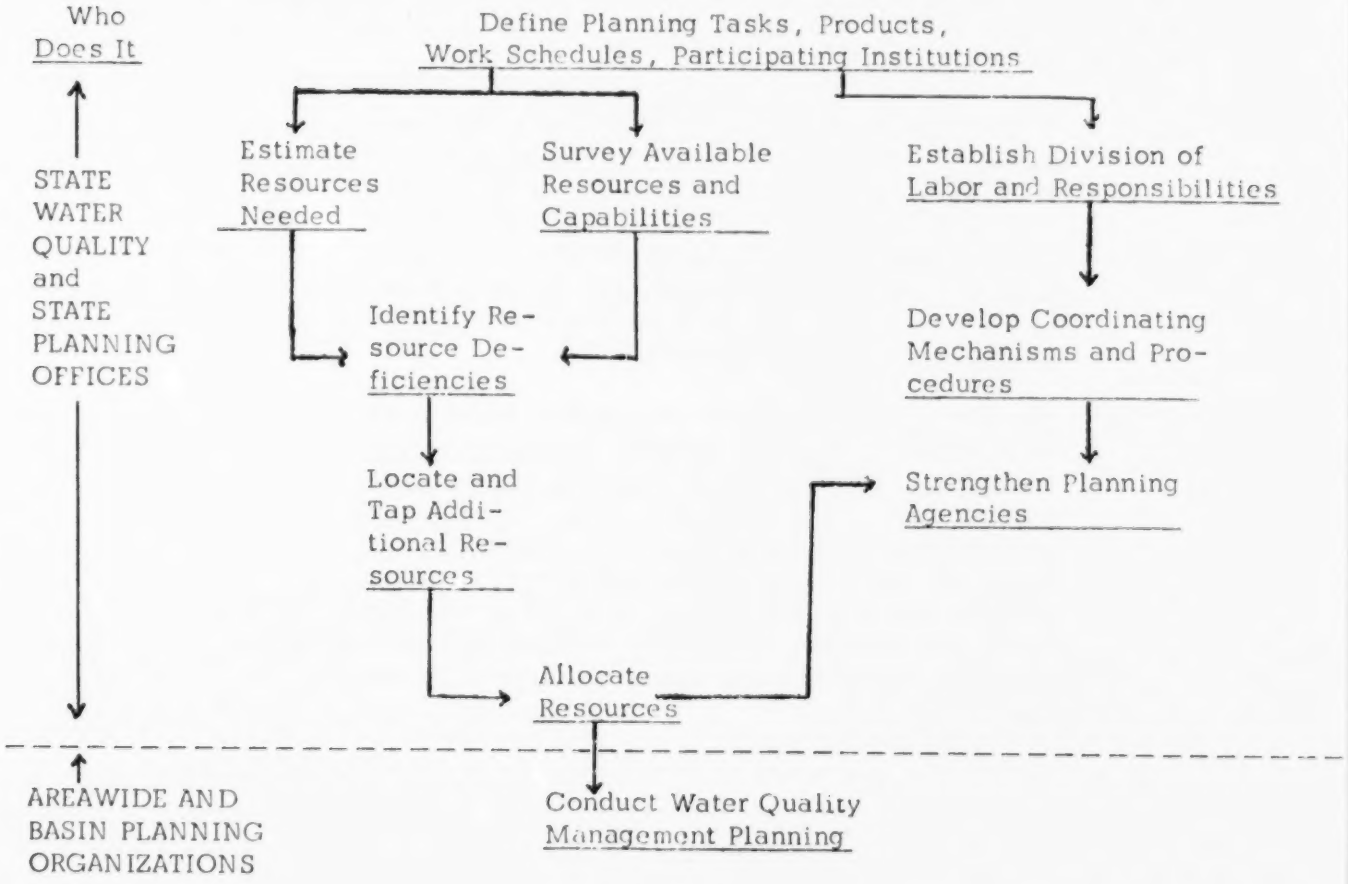
The September 1971 joint HUD-EPA memordandum starts in this direction. This recommendation is made here to emphasize the necessity of completing the necessary organizational steps so that State Water Quality and State Comprehensive Planning Offices can monitor the areawide planning efforts and be knowledgable as to the progress that is being made toward the meeting of the July 1973 planning deadline.

IV. A GUIDE FOR STATE ACTION

Although some of the problems met in implementing the Guidelines arise from the patterns of Federal-State relationships, many arise from the existing relationships among agencies at the State and sub-State level. Since the Guidelines effectively require certain types of planning activities and plans as prerequisites for federal grants, most of the actions to overcome existing problems and implement the Guidelines must be initiated at the State level.

This section outlines the major areas of activity that State agencies should undertake in implementing the Guidelines. The focus is on the development of the intergovernmental relationships needed for the planning process. The approximate flow of activities is shown on the chart which follows.

FLOW OF STATE ACTION FOR IMPLEMENTING GUIDELINES


Who Does It
Define Planning Tasks, Products, Work Schedules, Participating Institutions
STATE WATER QUALITY and STATE PLANNING OFFICES
Estimate Resources Needed
Survey Available Resources and Capabilities
Establish Division of Labor and Responsibilities
Identify Resource Deficiencies
Develop Coordinating Mechanisms and Procedures
Locate and Tap Additional Resources
Strengthen Planning Agencies
Allocate Resources
AREAWIDE AND BASIN PLANNING ORGANIZATIONS
Conduct Water Quality Management Planning

Work planning is a key element in initiating State activities for water quality management planning. A work plan identifies the specific planning tasks to be performed, the products to be prepared, the overall work schedules and the agencies that will participate in the work. This information is essential for developing agreements for intergovernmental arrangements and for the development of planning assistance grant applications.

The work plan should usually be developed by the key State agencies in water quality management planning -- the Office of State Planning and the State Water Quality Office. It can be the primary activity for developing stronger working relationships between the two. The first step toward the work plan is to restate the "Guidelines" in task form. Each of the major tasks thus identified can then be divided into a sequence of sub-tasks. As the analysis is done, relationships between tasks are developed and agencies to perform tasks are identified. The work plan should also be reviewed with the regional planning agencies to provide their view of the areawide planning tasks, keeping in mind that the Guidelines provide that:

1. The basin plan should provide the main input on hydrology, location, and characterization of waste sources (including storm water, combined sewers, non-point sources), treatment levels (present and future), water quality effects (present and future), land use, basin-wide alternatives (such as trans-basin diversions, flow augmentation), and basin-wide priorities for construction.

2. The metropolitan/regional plan should provide the main input on land use, growth, estimated waste production, process design, service areas, collection systems, sewer drainage areas, investigation of local and regional alternatives, cost estimates, financing, and insititutional arrangements. If no metropolitan/regional plan is to be prepared, the basin plan should then include the expected environmental impacts of any projects proposed for the basin.

As indicated in early parts of this report, HUD requires all areawide planning agencies to prepare work plans that program the tasks to be performed, including water quality management planning. The State should assemble, evaluate, and integrate these work plans in order to program the necessary statewide planning effort that will be necessary.

The check list set forth below is intended to be general and to be used as a guide to the preparation of basin and areawide water quality management plans. In addition, the Guidelines contain very effective outlines of content for both Metropolitan/Regional and Basin plans that should be referred to in the development of work plans.

Some of the items to be considered in work planning are listed below:

Planning Tasks

- Choose objectives
- Identify planning premises and problems
- Set standards; allowable waste loads
- Identify alternatives for waste management and treatment
- Collect Data
  - hydrological
  - economic
  - demographic
  - land use
  - waste loads
  - existing system -- location and capacity
- Estimate Costs and Resource Requirements
- Evaluate Effectiveness of Alternatives
- Evaluate Environmental Impacts
- Identify Legislative and Institutional Changes Needed
- Assign Priorities and Develop Management Strategy
- Develop Financing Methods

Products

- State Implementation Plan
- State Program Plan
- Basin Plans
- Areawide Plans
- Interim Plans

Schedules

- Deadlines for Completion of Products
- Schedules for Completion of Individual Tasks

Updating Procedures and Relating Areawide and Basin Plans

Resource and Financial Planning is a second important activity in implementing the Guidelines. This involves the estimation of the resources needed to complete the planning tasks, the surveying of available resources and capabilities, the identification of deficiencies, and the tapping of additional resources. The resources considered should include funds, trained manpower, equipment, data, and existing working relationships between institutions controling the resources.

Additional resources can be sought on the basis of well defined work plans from many sources. Existing State appropriations and bond issues can often be used for planning. Equipment can be borrowed, manpower detailed, and data transferred. In most cases, however, even the best efforts within the limitations of the State will need to be supplemented by Federal assistance.

There are many sources of Federal funds for planning assistance. Although none are currently adequate for water quality management planning, sufficient resources can often be had by combining sources and increases are possible if demand is well articulated. There are also possibilities that new or expanded sources of funds will be made available from various Federal programs in response to demonstrated need.

The following Federal programs provide assistance for water quality management planning.

- Basin Planning Grants under Section 3(c) of the Water Pollution Control Act
- EDA Planning Grants
- Farmers Home Administration, Department of Agriculture
- Water and Sewer Functional Planning under Section 701, Department of Housing and Urban Development
- Training Grants from the Environmental Protection Agency
- Economic Development Administration Planning Grants to Eligible Agencies

A new mechanism is coming into being that will facilitate the application for funds from several Federal programs. Under the Integrated Grant Administration (IGA) Program to be set up by a new Office of Management and Budget Circular, it will be possible for public agencies to apply for a number of Federal assistance grants through a single application. Integrated Grant Applications will be processed under the auspices of the Federal Regional Councils and administered through a lead Federal agency. A key objective of the IGA program is "to encourage the 'nesting concept' of work program development, whereby State and local planning agencies jointly undertake common or coordinated activities and share staff."

The IGA will make it possible to tap planning assistance funds from various sources to finance the development of water quality management plans for a State. For example, Arkansas is planning to submit an integrated grant application for Section 3(c) funds from EPA, planning funds from Farmers Home Administration and from HUD. Also included in the application will be requests for Solid Waste Management Planning funds from EPA.

The IGA also provides strong leverage for unifying and coordinating planning activities. Because it provides a funnel through which funds from several sources flow, it also provides a focal point for management of the grant by the State. A State can unify the administrative activities associated with planning assistance and in the process unify and coordinate the activities of other State and regional planning agencies involved in water quality management planning. Once again, an active role at the State level is called for.

In addition, planning may be declared an allowable expense under the Waste Water Treatment Works Construction Grant Program, Section 8 of the Water Pollution Control Act. While this represents a sizeable source of funds, disbursement is made on a reimbursable basis. Since the work must be "in place" before payment is made, a revolving fund for forward financing of planning is needed.

The use of Section 8 construction funds for planning would be facilitated if the States established revolving funds capable of financing planning as well as construction. Basin and areawide planning costs could be established on a pro rata basis for each project undertaken. The revolving fund would be repaid for planning advances as well as for construction advances as Section 8 funds were paid to the managing agency on completion of the work.

A third type of implementing activity, perhaps the most important in the long run, can be called institution building. Water quality management planning will be a continuing enterprise and may well increase in importance as population and economic growth press ever harder on existing water resources. Eventually, a close relationship will be essential between waste water management and treatment plans and the comprehensive areawide plans for land use, water supply, and the provision of public facilities and services. This will require close working relationships between the governmental institutions charged with the related planning and management activities. Implementation of the Guidelines provides a prime opportunity for strengthening these institutions and their interrelationships.

State officials should take a more active role in building the new institutional arrangements needed for water quality management planning. These arrangements need to reflect the pecularities of the existing institutional structures and the emerging planning system. But they should also recognize that a task of the magnitude of water quality management planning can be a powerful stimulus for growth and change. Care should be taken to guide this growth so that it strengthens the State and regional agencies responsible for comprehensive planning as well as those with narrower functional responsibilities. This strengthening can occur through increased competency and through increased political support.

State governments have several means of building new institutions. The "Guidelines" call for the Governor to designate planning agencies. This enables State officials to establish a consistent and coordinated team of planning agencies. The States also have a coordinating role in

compiling and certifying plans and in reviewing construction grant applications. These levers give an additional means for guiding the development of intergovernmental arrangements. Needless to say, these policy levers must be used actively in pursuit of planning and institutional development.

There are several types of institutional arrangements that States should establish to implement the "Guidelines". Relationships are needed

- To coordinate activities of basin planning organizations;
- To coordinate comprehensive and water quality management planning activities at the regional level;
- To coordinate basin planning and areawide planning activities with each other; and
- To integrate the basin and areawide plans into the State Program Plan.

To establish these institutional arrangements, the Office of State Planning should play an active role in developing agreements between the various agencies, specifying

- the division of labor;
- mechanisms for the exchange of resources and information;
- the timing of activities;
- the coordination of key decisions.

The best starting point for such agreements is usually the identification of personnel in the various agencies with the authority, competency, and willingness to participate actively in the planning process.

To this end, State Planning and Water Quality Offices should establish working teams of competent professionals and specialists to provide direct technical assistance to sub-State areawide planning agencies. A sense of teamwork and partnership should be established between State and sub-State agencies. Such mutual assistance is essential to the accomplishment of clearly stated and understood common water quality management goals.